

APR 26 2007

Application Number: 10/611,842
Filed: 07.01.2003Office Action Date: 02.01.2007
Amendment Date: 4/26/2007**Listing of Claims:**

This listing of claims replaces all prior versions and listings of claims in the application.

1. (Previously Presented) A bent tube having a bend configuration comprising:
a curve extending between first and second ends;
a portion of the curve being a circular arc; and
a clothoid transition portion extending from the second end toward the circular arc having a radius of curvature decreasing from zero curvature to a radius of curvature of the circular arc at a point of integration.
2. (Canceled)
3. (Previously Presented) The tube of claim 1 including a second transition portion extending from the arc portion toward the first end having a curvature decreasing from the bending radius of the arc to the zero curvature.
4. (Original) The tube of claim 1 wherein the curve subtends an angle of 90 degrees.
5. (Original) The tube of claim 1 wherein the curve subtends an angle greater than 90 degrees.
6. (Previously Presented) The tube of claim 1 wherein the curve subtends an angle less than 90 degrees.
7. (Canceled)
8. (Canceled)

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9. (Currently Amended) A draw die for tube bending, the die having a bending surface configuration comprising:

a curve extending between first and second ends;
a portion of the curve being a circular arc; and
a clothoid transition portion extending from the second end toward the circular arc having a radius of curvature decreasing from zero curvature to a radius of curvature of the circular arc at a point of integration; and,

~~The draw die of claim 7~~

including a second transition portion extending from the arc portion toward the first end having a curvature decreasing from the bending radius of the arc to the zero curvature.

10. (Currently Amended) The draw die of claim 9 ~~claim 7~~ wherein the curve subtends an angle of 90 degrees.

11. (Currently Amended) The draw die of claim 9 ~~claim 7~~ wherein the curve subtends an angle greater than 90 degrees.

12. (Currently Amended) The draw die of claim 9 ~~claim 7~~ wherein the curve subtends ~~and an~~ angle less than 90 degrees.

13. (Previously Presented) The bent tube of claim 1, wherein the shape and arc length of the transition portion is defined by a length and an angle of the portion of the curve being the circular arc.

14. (Currently Amended) The draw die of claim 9 ~~claim 7~~, wherein the shape and arc length of the transition portion is defined by a length and an angle of the portion of the curve being the circular arc.